# THE WESTERN FARMER AND GARDENER;

DEVOTED TO AGRICULTURE, HORTICULTURE, AND RURAL ECONOMY.

Vol. III.] Cincinnati, October, 1841. [No. I.

### Address.

In commencing the third volume of the Western Farmer and Gardener, the Publisher takes the liberty of addressing a few words to its patrons.

The heavy expense of getting out a work in the style of the Western Farmer and Gardener, makes it a matter of great importance, not only to keep up, but to enlarge the subscription list to as great an extent as possible; and it is hoped the friends and well wishers of the paper, purposing to continue their subscriptions to the third volume, will give early notice of their intention.

The encouragement given in the past year, induces both the Publisher and Editor to believe that the present volume may, possibly, return some of the outlay that has been incurred in carrying on the two previous volumes.

Being personally known to a considerable number of the subscribers to the work, especially through Ohio and Kentucky, the assurance of unremitting exertion to render the same not only useful but ornamental, to them would be superfluous, though to those not so acquainted, such assurance is made in the strictest good faith.

In conducting a paper calculated to embrace the interests of the farmers of the Western states, both the Publisher and Editor feel that it is not solely to be done, satisfactorily, by sitting in an office in Cincinnati, and arranging communications which may reach them by post. It is by throwing themselves personally amongst the farmers of the West, and visiting their respective districts, that their wants and interests, subject to local circumstances, can be fully appreciated and understood. And with this view, extensive arrangements have been made, which will enable either one or the other, to visit several sections of the country this fall.

It will be apparent to all, that so wide a field as is embraced in the Western states cannot, however desirous, be gone over in one season, though a considerable region of country may be visited.

This difficulty has been partially obviated, by engagements being made with active and efficient agents, in various parts of the country, amongst whom we would particularly recommend to the notice of our friends Mr. Sanford Howard, who will, for us, visit the Scioto valley, and, indeed, a considerable part of Ohio, reporting periodically to us. Also, Mr. J. S. Willetts, of Indianapolis, (formerly Publisher of the Indiana Farmer) who will act as general agent for us through Indiana, and whose talents and zeal in the cause are sufficiently well known, to need no comment.

Any notice of ourself may appear egotistical, though an observation on the illustrations of the work make it requisite. The necessary drawings and portraits of animals are all drawn and the copper-plate engravings executed by the Publisher; for this, he was not professionally educated, and his first attempt with the graver, was Mr. Mahard's bull, in the second number of the second volume—practice, they say, makes perfect; to this, he does not presume, but he flatters himself that progressive improvement has followed his efforts. The object of thus noticing this circumstance, is to demonstrate to the friends of the work that following the natural course of events, the execution of the illustrations are more likely to improve than otherwise, and from the arrangements above explained, it is also anticipated, that the editorial department will be sustained with renewed interest and efficiency. C. Foster, *Pub.*

### Portrait of "Fair Maid."

Our first engraving in the third volume, is a portrait of "Fair Maid, of Franklin," a very handsome light roan heifer, the property of Robert W. Scott, near Frankfort, Kentucky,—by whom she was bred.

"Fair Maid" was calved January 6th, 1839, got by Frederick, dam Ruby, by Zeba, (*she also bred and owned by him, and has taken eight premiums,*) gr. d. Hetty Haggin, by imported San Martin; g. g. d. the imported Red Cow of 1817, (Zeba, bred by Mr. Lewis Saunders) was got by Col. Powell's Sultan, dam Kentuckiana, &c., &c.

"Fair Maid" has been exhibited for premiums three times, two of which were awarded to her, and she contended for the third. On the 1st of May, 1841, she brought her first calf, Ne plus Ultra, which is represented in the engraving with her; he is by Hector, imported by Mr. Neff, of Cincinnati, now owned by Mr. W. A. Warner, of Lexington. Like Frederick's stock generally, "Fair Maid" is thrifty, and promises to be an excellent milker. It is unnecessary to repeat, that the whole of that portion of Mr. Scott's stock springing from Old Hetty are fine, it is a fact so notoriously attested, that it needs nothing here to give it force. In making drawings of the whole of her progeny, the points of each animal necessarily passed under close review, and in our estimation, (saving Ruby her dam,) "Fair Maid," is indeed the flower of the flock.

C. F.

---

### Mr. Neff's Sale of Durhams

Taking every thing into consideration, this sale has gone off extremely well. Some few animals were, in a measure, sacrificed; but generally speaking the prices were fair. The number sold amounted to about thirty, including only some seven or eight of the *elite* of the herd, bringing altogether a little over $5,500. A great part of these were not full bred, as will be seen by reference to the pedigrees; these brought fair prices. Of the choice animals sold, and sold low, were No. 2, at $450; No. 3, $380; No. 5, $500; (we understand that these three have been since resold at a very considerable advance.) No. 21, $400; No. 31, $475, (repurchased by Mr. Neff;) No. 33, $230; No. 34, $300; No. 36, $400; No. 40, $300; No. 42, $270; &c. &c. Several of these, including Brutus, were knocked down at about half their value. For cheap stock there was considerable demand; but for animals of high value, and for grown stock, there was scarce a bidder. In consequence of this, Mr. Neff, after putting up and selling a few at a heavy sacrifice, and begging purchasers to *name* those animals they wanted, declined selling any more, as none were named. He thus still retains No. 4, 15, 17, 19, 20, 22, (but is about disposing of him at private sale, at $1,500) 28, 29, (declined $1,500) 41, 45, 47, 50, 51, 52, & 54.

Several hundred persons were present, but very few strangers from a distance, and only *one* breeder from Kentucky!

A few hogs were sold, and a few sheep, at private sale, bringing the customary prices.

Mr. Reeder, seeing so few purchasers on the ground, declined offering any of his stock.

---

### Mr. Warner's sale of Durhams.

This sale came off, near Lexington, Ky., on Wednesday, 1st Sept., and a correspondent informs us, came off well. White Rose sold for $400; Io, $399; the two year old heifer Elizabeth, $200; the rest he states to be inferior, and to have sold in proportion. White Rose and Io are superior animals, and we should say, were cheap at the prices. Hector was withheld. The hogs brought fine prices, from $50 to $165.

---

### The Fair at Carthage.

The Fair of the Hamilton County Society and exhibition of stock and implements, was held at Carthage, on Thursday and Friday the 9th and 10th inst., and did honor to the Society. The day was excessively close and sultry, notwithstanding which the concourse of people was very great, showing the interest felt by all classes.

We would gladly enumerate each individual animal and each implement, but that our space will not allow of.

The show of horses was fully as good as we expected. The blood-horse "Wanton Will," and the draught-horse "Gilbert," attracted particular attention, being each noble specimens of their kind. Gilbert, we are gratified in having it in our power to say, will make his next season here, and has already a number of engagements.

Of cattle we had a fair turn out, including some fine animals.

Of sheep we had but a few, and those mostly choice Mr. Whitehead's Leicesters, and our own Southdown (premium) buck lamb, bred by Mr. Smith, drew a great share of the attention

The hogs, however, led the day! We question much if any other region of the Union could turn out such a splendid crowd! Every one of them Berkshires, and almost every one of them *choice* at that. To go over them all, would be impossible. How the judges were able to come to a decision, we cannot see—it was almost more than we thought possible, and presume that so great was the difficulty, that they were compelled to get over it, by letting *size*, in several instances, carry the day. Mr. Mahard showed only some half dozen, wisely declining to put his stock animals in show order. The breeders north of us turned out a superb lot, and in fine order; some of them were of size sufficient to suit any taste, and combining with that size extreme fineness of form.

The ploughs exhibited by Messrs. Peacock, and Raymond & Hubble, did these makers great credit, and were universally admired. We much regretted that no opportunity occurred for testing them effectually.

The Threshing Machine struck us as being something altogether new.

Being the first Fair held by the Society, the arrangements were not altogether complete—by another year we hope to see such adopted as will be altogether unobjectionable.

Numerous sales of stock, for the supply of this region, took place on both days, giving evidence that even here, where some seem to think there is already a surplus of fine animals, the demand is greater than ever, and still increasing. The vast extent of country, west and south of us, yet to be supplied, guarantee to judicious and careful breeders, a full demand for many years.

### PREMIUMS.

The premiums of the Society were awarded as follows.—

#### *Horses.*

The best stallion, to *Wanton Will*, by Brunswick; dam by Prince Richard: the property of G. Coffeen, Jr., of Warren County

A certificate was awarded to the three year old colt, *John Tyler*, by Smalley's Cherokee; d. Betsy Baker; the property of J. H. Sheehan.

A certificate was awarded to the two year old colt, *Young Arabian Doctor*, by Arabian Doctor; dam Strouder's Arabian: the property of Jonas Whitaker.

For the best brood mare, to *Whirlwind*, aged six years, by Medoc; dam old Ephestion: the property of Joseph Cooper.

A certificate was awarded to a sucking colt, by Young Medoc; dam a mare, the property of Jos. R. Symmes.

A certificate was awarded to a sucking colt, by Seward's Oscar; dam a mare, the property of Jeremiah Steelman.

(In justice to the draught horse, Gilbert, we may state, that he was positively withheld from the ground until after the premiums were awarded, there being no approach to competition in horses of his character.)

#### *Cattle.*

For the best aged bull, to *Prince Frederick*, by Ohio; dam Octavia, by Denton: the property of John Mahard, Jr.

For the best two year old bull, to *Adonis*, by Falstaff; dam Pink: the property of G. Luckey, of Hamilton County.

For the best yearling bull, to *Magnum Bonum*, by Prince Frederick; dam Lady Ann, by Magnum Bonum: the property of E. R. Glenn, of Hamilton County.

For the best bull calf, under a year, to *Kentuckian*, by Ohio; dam Minna: the property of C. S. Clarkson, of Hamilton Co.

For the best aged cow, to *Lady Ann*, (imported,) by Magnum Bonum, (2243;) dam by Linton: the property of John Mahard, Jr.

For the best two year old heifer, to *Miranda*, by Berryman; dam Florida, (imported,) by Young Bolivar.

For the best yearling heifer, to *Minerva*, by Hector; dam Lady Ann: the property of E. R. Glenn.

For the best heifer calf, under a year, to *Blandina*, by Prince Frederick; dam Florida, by Young Bolivar.

Milch cows, none exhibited.

#### *Hogs.*

For the best boar, over two years, to imported *Reading*; the property of Jno. Reed, of Butler Co.

For the best boar, from one to two years, to *Sampson*, by Big Sampson; dam A. Tichenor's Bet; the property of E. R. Glenn.

For the best boar, from six to twelve months, to *Miami Mingo*; the property of Jacob H. Smith.

For the best boar under six months, to *Sam Patch*: the property of David Reed.

For the best sow, over two years, to *Old Superior*; the property of John Reed, of Butler Co.

For the best sow, from one to two years, to *Miskwa*; the property of John Reed.

For the best sow, between six and twelve months, to *Nonesuch*; the property of Munson Beach, of Warren Co.

For the best sow, under six months, to *Perfection*; the property of Garrett Williamson, of Hamilton Co.

Fat hogs, none exhibited.

The committee on hogs, reported that they had great difficulty in deciding between the sows, from one to two years old; and between the boars and sows under the age of six months.

#### *Sheep.*

Best grown buck of any breed, to *Craven*, a thorough-bred Bakewell; the property of C. Whitehead.

Best grown ewe of any breed, to *Bess*, a thorough-bred Bakewell ewe; the property of C. Whitehead.

Best buck lamb of any breed, to a thorough-bred Southdown; (bred by Geo. Smith,) the property of C. Foster.

Best ewe lamb of any breed, to a one-fourth Southdown, and three-fourths Bakewell; the property of Geo. Smith.

*Domestic Manufactures, and Butter.*

None exhibited. The committee hope that this will not be the case at the next fair.

*Silk.*

Only one specimen of silk exhibited—by J. A. Farquhar, who showed a parcel of reeled, of eight and ten fibres—stating it to have been grown and reeled in his family; the Piedmontese reel being used; and the operation being one in which he found no difficulty.

The committee consider the article a very fair sample—the prospects in favor of the silk business very encouraging, and only requiring the fostering hand of Congress, and the attention of the manufacturing part of community drawn to it.

*Agricultural Implements.*

A certificate to Raymond & Hubble, of Cincinnati, for their No. 6 plough—and to A. Peacock for those shown by him.

*Honey.*

A certificate was awarded to G. Townley, for a fine specimen of honey, exhibited in the glass copartment of a Patent hive.

On the second day the Society held a meeting in Carthage for the transaction of business.

The following officers were elected for the ensuing year.

| | |
|---|---|
| President, | JOHN MAHARD, JR. |
| 1st Vice President, | ALEX. MAYHEW. |
| 2nd " " | E. CUNNINGHAM. |
| 3d " " | LEVI BUCKINGHAM. |
| Treasurer, | JOHN MARTIN. |
| Corresp. Secretary, | THOMAS AFFLECK. |
| Recording " | E. J. HOOPER. |

Executive Committee,—MESSRS. LUCKEY, MAGILL, E. R. GLENN, SNYDER, WILLIAMSON, A. F. CARPENTER, ISAAC WARRING, JAMES GIVEN, CHARLES MILLS BRYANT, of Greene, JOS. COOPER.

Mr. Mahard made a very excellent address, full of sound practical good sense. We would be pleased to publish it, but we cannot possibly afford the space.

---

**National Agricultural Society.**

The readers of the Farmer and Gardener are well apprized of the interest we take in the formation of a National Agricultural Society.—Its organization is now definitively fixed. At a preliminary meeting, held at Washington, the following resolutions were adopted:—

On motion of the Hon. Henry L. Ellsworth, it was

*Resolved*, That the interests of Agriculture imperiously require the co-operation of its friends, throughout the Union, to *concentrate* their efforts by the formation of a National Society, for the promotion of National Industry, and "*to elevate the character and standing of the cultivators of American soil.*"

On motion of the Hon. A. O. Dayton, it was

*Resolved*, That [blank] be a committee to prepare a draft of a Constitution for a National Society of Agriculture, to be submitted to a meeting of the friends of such a Society, from all parts of the Union, to be held at the city of Washington on the second Wednesday of the ensuing session of Congress.

On motion of the Hon. T. S. Smith, it was

*Resolved*, That the chairman fill the blank in the last resolution with the name of one gentleman from the District of Columbia, and one from each State and Territory.

On motion of Mr. Ellsworth

*Resolved*, That the name of the chairman of this meeting be added to the committee for framing the constitution.

The chairman announced the names of the following gentlemen as the committee:

Hon. Henry L. Ellsworth, District of Columbia; Hon. James M. Garnett, Virginia; Hon. Chilton Allen, Kentucky; Hon. Oliver H. Smith, Indiana; Hon. Thomas S. Hinde, Illinois; Hon. Lewis F. Linn, Missouri; Hon. Francis H. Gordon, Tennessee; M. W. Phillips, Esq., Mississippi; Hon. Dixon H. Lewis, Alabama; Hon. Alex. Mouton, Louisiana; Hon. Wm. S. Fulton, Arkansas; Hon. Augustus C. Dodge, Iowa; Gov. James D. Doty, Wisconsin; Hon Wm. Woodbridge, Michigan; Wm. Neff, Esq., Ohio; Wm. P. Kinza, Esq., Pennsylvania; Edmund D. Morris, Esq., New Jersey; Dr. James W. Thompson, Delaware; Hon. John S. Skinner, Maryland; Hon. Edmund Deberry, North Carolina; Hon. Francis W. Pickens, South Carolina; Hon. Wm. C. Dawson, Georgia; Gov. Call, Florida; Caleb N. Bement, Esq., New York; Solomon W. Jewett, Esq., Vermont; Hon. Levi Woodbury, New Hampshire; Hon. George Evans, Maine; B. V. French, Esq., Massachusetts; William C. Chapin, Esq., Rhode Island; Hon. Thomas B. Osborn, Connecticut.

On motion, the meeting adjourned.

SOLON ROBINSON, Ch'n.

J. F. CALLAN, JOHN A. SMITH, } Secretaries.

*Washington City, Sept. 4th*, 1841.

From West. Farmer and Gardener's Almanac for 1842.

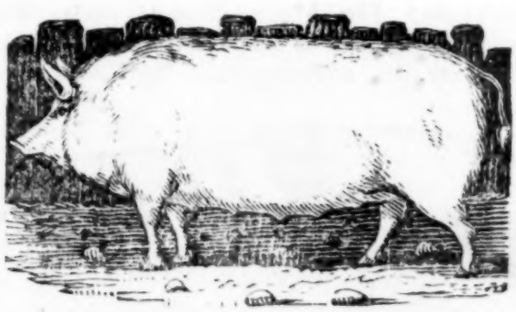
### A Chapter on Hogs.

As this species of farm stock justly occupies much of the attention of the farmers of the West, at this time, we shall devote a chapter to a sketch descriptive of those breeds in which the most interest is felt.

Let us see first what constitutes a good hog. The head—though it is certainly preferable that this should be short, handsome and sprightly, with thin, small, pointed and pendulous ears; yet good hogs may have a long and somewhat coarse head, with a heavy, flopped ear. The jowl should not be too heavy—the flesh of that part is coarse and of little value; and moreover, it denotes a *too great* aptitude to fatten, frequently to the serious injury of the breeding qualities. The neck short and not too heavy, fitting well on to the shoulder; the shoulder, not quite as high as the loin, thick and of good substance, rounding well out: the constitution is generally in proportion to the capaciousness of the breast and loin: the brisket, coming well down, and the distance between the fore legs as great as possible. The back broad and straight, and rather slightly arched than otherwise, and particularly no sinking immediately behind the shoulder. The ribs well arched, forming a good barrel, and supporting the belly well. The loin, as before remarked, wide and full, with the ribs coming well back. The rump, rounding off evenly, the tail well set on, tapering and thinly haired, except the tuft, which may be heavy: in some breeds the tail is curled like a corkscrew. The ham must be of good size, round and plump, and swelling out so as to come in a line with the shoulder: such a formed ham will weigh well to its size. The hips, wide spread, and the twist coming well down; the flank deep and full; the belly roomy, but not coming too near the ground. The legs straight and fine in the bone; the muscles heavy, particularly in the thigh and arm; the hock pointed; the pastern joints firm and strong, not resting the dew-claws on the ground, so that the animal has a bold and erect footing: a thick, fleshy leg will not carry a heavy hog to a distant market. The skin thick, but tender and gelatinous, and easily masticated, even in the shape of roasted crackling; soft, and handling well, and free from eruption. The hair, smooth and soft, no bristle on the neck, shoulder or back. It has been observed, even by some of the oldest writers, that "smooth, soft-haired hogs are most suitable for warm climates."

Though the above described form and qualities are those, that in our view, constitute the best hog, yet, like all other kinds of farm stock, they should in a measure be adapted to the climate, situation with reference to market, nature of the keep, and the circumstances and management of the farm.

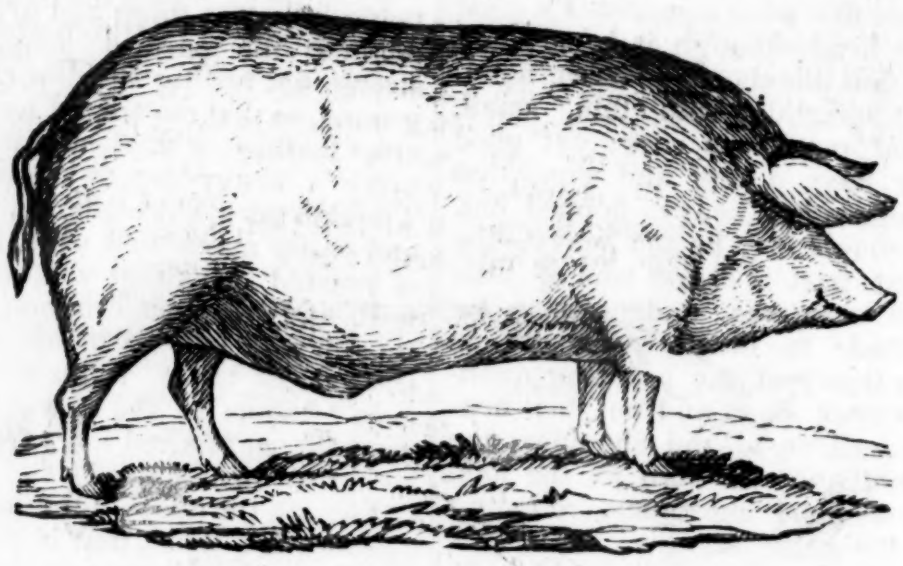
Our space will not allow it, nor is it of any moment to trace back or describe the common woods-hog, still unfortunately too numerous in the west: it will suffice that we describe those breeds so far as we can at this day discover them, that were used in improving that stock.



The first, it is presumed, that did much good, was the White China. (The portrait here given is that of *Petunia*, the property of Mr. Charles Foster, publisher of the Western Farmer and Gardener. She was bred by Dr. S. D. Martin, of Ky.; got by his imported China Boar, out of his imported Lancashire Sow; and, although thus only half China, possesses the form and appearance of that breed in much perfection, with somewhat more length of body and better action.) The pure China is generally white; some families of them are black; size small, bone very fine, flesh rather fat, though delicate, particularly when used young for roasters; body short but deep, neck thick and short, jowl very heavy, legs short, hams rather light; the aptitude to fatten so great as to render it extremely difficult to have them breed well and freely. They will reach, with very modera-

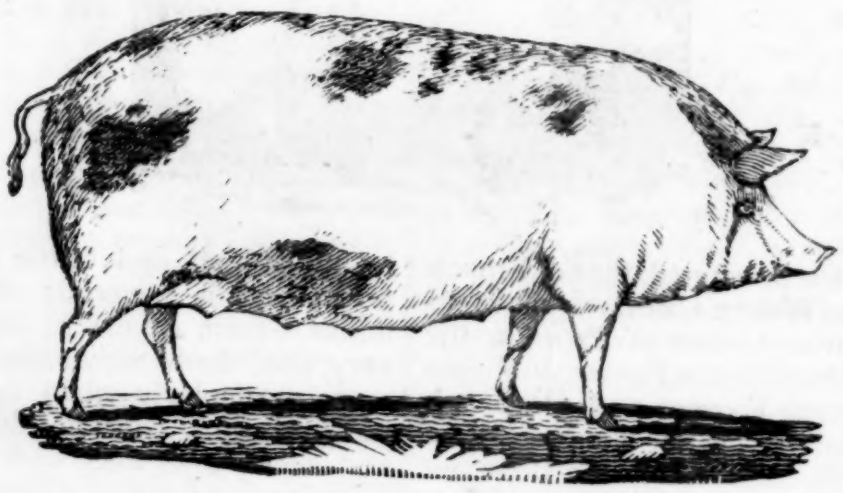
feeding, at eight to twelve months, from 150 to 200 lbs.

In many parts of the west, families of hogs, very different in character and appearance, go by the same name. Thus, we have Russia hogs, some of which are of extraordinary size, but coarse, and others that are small and delicately formed; Byfields, that are of great size, white, with heavy lopped ears, flat-sided, but of great length, and others that are "beautifully white, their ears small, pointing to the nose, broad back, deep chest, large jowls, short nose, dish face, and thin hair.' Different grade crosses of these animals, and again with the China, have produced the celebrated Warren County hog. These vary in character and size.



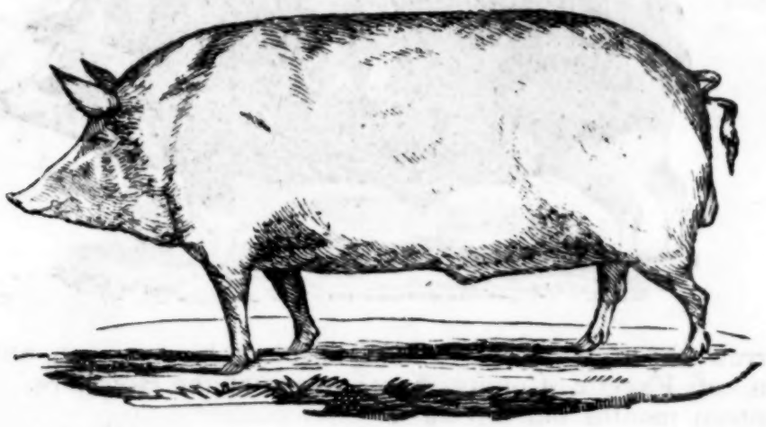
The above cut represents one, bred by Mr. A. Sanburn, of Hamilton County, O., a large, but coarsely formed animal, stated to have weighed 1027 lbs. at two years old.

The variation in the character of the half dozen different sorts of *Bedfords*, is also great, in size, color and form. We are, however inclined to think, that they were all *originally* sprung from Parkinson's importation, and that the changes are produced by the different crosses used. Some are white, and some sandy, with numerous large black spots. Dr. Martin's *Woburn* hog is also supposed to be descended from this importation of Parkinson. If that is the case, it supports our opinion, expressed some time ago, that they are, "as nearly as may be. one and the same with the old original Berkshire hog," some change having taken place, and that, take it altogether by no means for the worse. Those imported to the vicinity of Baltimore, by Mr. Parkinson, an Englishman, some fifty years ago, it is distinctly stated, "were not Bedford pigs, but Berkshire. It is all fudge about the Duke of Bedford and his pigs. The Duke had his from Mr. Weston, of Sussex, and were called Sussex hogs." —[*Amer. Farm.*; *vol* 14., *page* 373.]

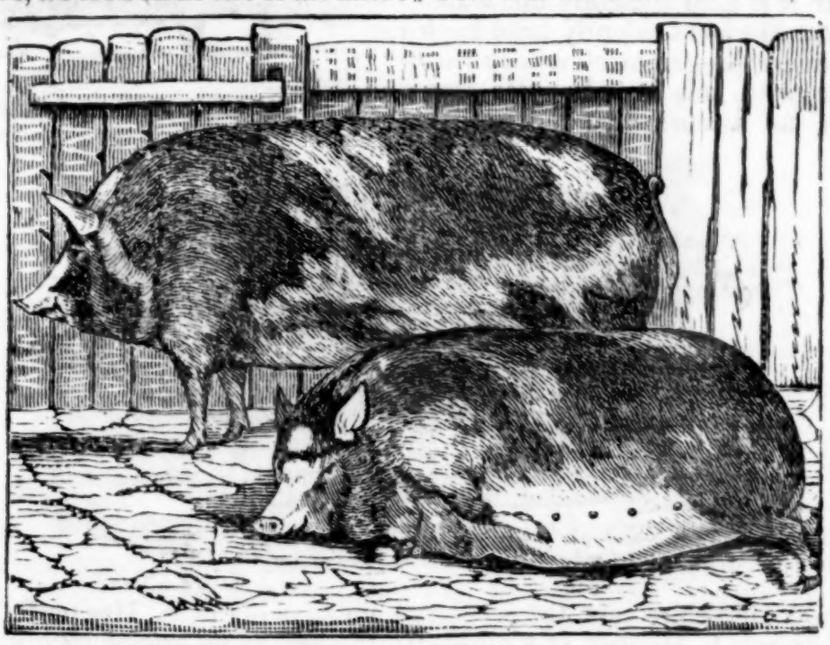


The portrait here given of one of Dr. Martin's Woburns, is that of *Barbara*, the property of Mr. Richard Allen, of Jessamine County, Ky., and a fair specimen

of the breed. The individuals of this breed vary a good deal in appearance: we will take the average of those we have seen, both as to size and form. The head, neck and ear, are fine, the latter somewhat rounded, and leaning forward and outward; the shoulder, generally good, though from the close breeding that necessity has compelled Dr. M. to practice, there is a sinking behind the shoulder in a majority of them; the back, otherwise remarkably fine, slightly arched, very broad, the ribs coming finely out, and supporting the belly better than is common in any other breed; the loin splendid, but high above the shoulder to a *very great* degree; the rump, drooping rather suddenly; the ham, large, but thick and round as it ought to be; twist, fair; the flank, in some good, in others sadly tucked; the legs, generally so good as to resemble those of a deer much more than a hog; the bone stout, stout, and though large, not too much so an animal of their size, which is equal to 500 or 600 lbs., at eighteen months or two years old, with good keep; the skin good, and the handling very fine; the hair long, coarse and harsh. They will attainto a very great size, and fatten well when matured. Dr. M. states that they will fatten kindly at any age, and upon a less amount of food than any others. We do not fully coincide with him in this: however, it is now about to be put to the test.



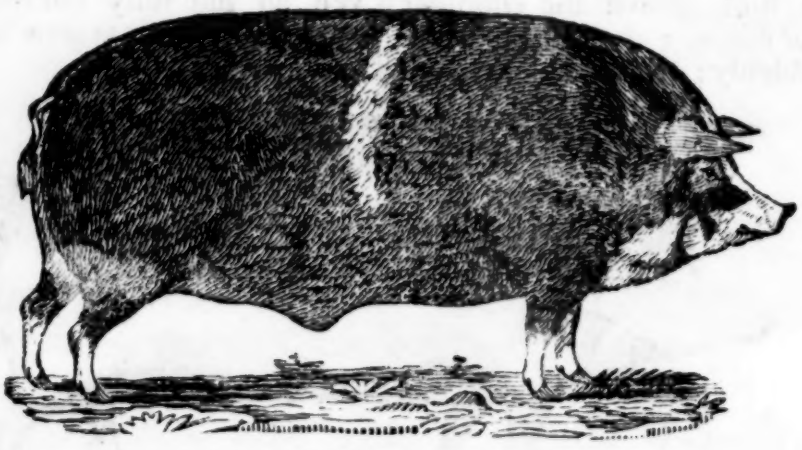
In 1839 Dr. M. had four hogs sent him from England, specified as a WHITE BERKSHIRE and WHITE CHINA, both boars; NEAPOLITAN and LANCASHIRE, two white sows. The first named, whose likeness is given above, we look on as one of the finest hogs in the State, and though altogether differing in color, closely resembling in form the improved Berkshire of the present day. He was bred to one of Dr. M.'s largest Woburn sows, and part of the produce was the BANTER PIGS, about which



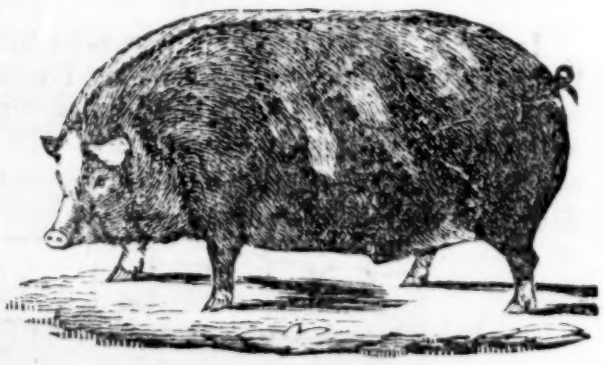
so much has been said. They were selected to be fed by Dr. M., against a pair of improved Berkshires, in the hands of Mr. Fanning, Editor of the Tennessee

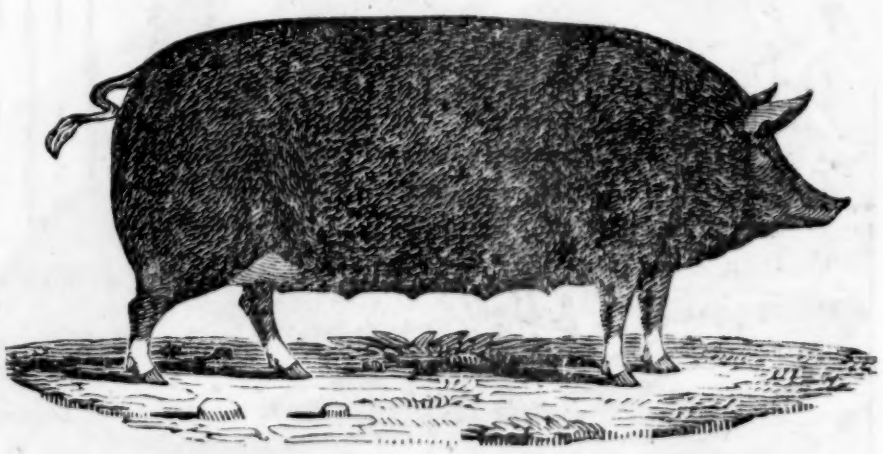
Agriculturist, and beat the Berkshires a long way. They weighed, *Bernice*, (the one standing up,) 354 lbs., and *Bertha*, 348 lbs., when eight months and seven days old! Their form is almost perfect; handling very fine, and are altogether a beautiful pair. They had as much of the best of every kind of food as they could eat, and the most scientific management. Their weights, on the authority of responsible and honorable men, have been equalled, if not surpassed, at the same age, by Berkshires, with ordinary good keep. We do not state it, however, on our own knowledge, though we fully believe it.

The IMPROVED BERKSHIRE hog, now so highly esteemed, more nearly approaches the "ne plus ultra" of a perfect animal of his kind, than any other. His form is perfect; his legs are, however too frequently faulty, though by no means always so. A proper selection of those bred from, would soon correct that. His jowl, too, is often heavy, and his fattening propensities so great, that unless care is used with sows, they will quickly become too fat to breed. The cut below represents



*Tom*, a barrow, the property of Mr. Edward Allen, of Fayette County, Ky.: when seventeen months old, having attained his growth, and in good order, though not fat, he weighed 410 lbs. We have here another barrow, *Daniel Lambert*, the property of Mr. Richard Allen, of the same County, that when eight months old, weighed 230 lbs., and is now so fat, that it is with difficulty he walks or breathes. He has evidently bred back to his Siamese progenitors—a very rare occurrence with this breed. We look upon him as a curiosity, and merely speak of him as such, and not as a specimen of the Berkshire.

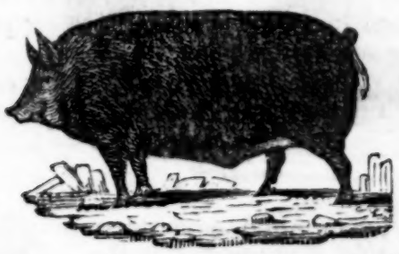




*Madam*, a Berkshire sow, the property of Mr. Edward J. Hooper, of Campbell County, Ky., formerly Editor of the West. Farmer and Gardener is a beautiful specimen of her race. Her perfection of form, though by no means rare in this breed, we think hard to beat in any other.

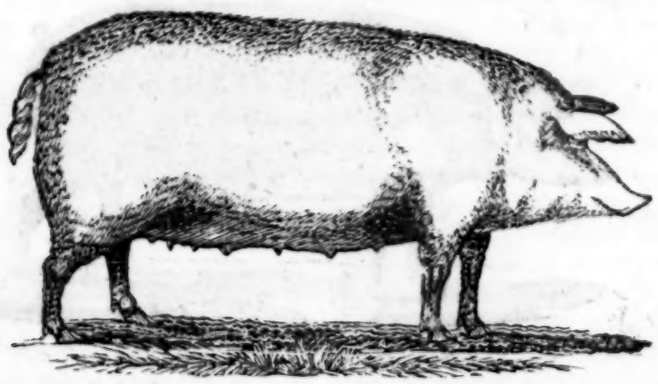
The Berkshire hog, upon moderately good keep, will mature so as to fatten kindly at twelve to fifteen months old, and yield from 250 to 400 lbs. of nett pork, and that in greatest weight where most valuable.

We spoke of the SIAMESE. It was to this breed that the present improved Berk-

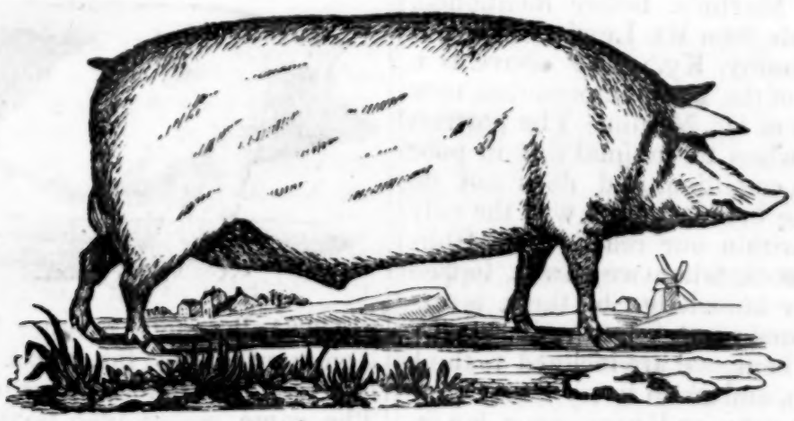


shire was originally indebted for its improvement, since continued and brought to its present state by judicious breeding. This individual is owned by Mr. John Mahard, Jr., of Cincinnati, and was presented to him by Mr. A. B. Allen. He is now about a year old, and we should judge would weigh not quite 60 lbs.,—of the most perfect form; soft, black hair, with a coppery tinge to it; all the feet white, and a blaze on his face, and his form as here represented.

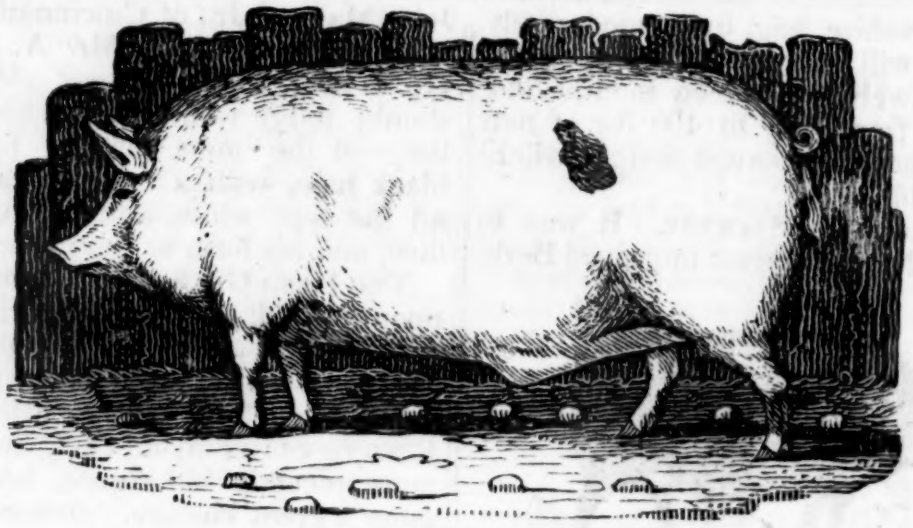
The IRISH GRAZIER is an improvement upon the old Irish hog, described by the early writers as "large, flat-sided, heavy-eared and white," which character is also given to the Irish hog imported into the Eastern States at an early day. Those more recently introduced, have undergone a great change. Several importations have been made, some to Illinois, some to Kentucky, and others to Ohio, all somewhat differing in appearance, and all white. Some of them, we admire much; others are too large, evidently requiring years to mature; and from their appearance, we should judge them great



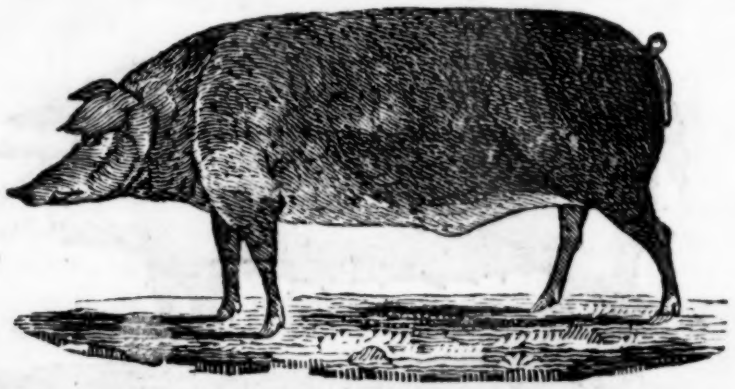
consumers. The others seem more thrifty. The above sow, *Lily of the Forest*, the property of Mr. Richard Allen, of Jessamine County, Ky., full grown, will weigh some 350 or 400 lbs., and is descended from Grier's importation. This



boar, *Poppet*, of Mr. William Neff's direct importation, also matured, will weigh about 450 to 500 lbs., and is a very finely formed animal. Some of that importation and their descendants, carry the ear pricked; they have fine length, a splendid barrel, good legs, and very fair hams. The hair is scant, though fine, and the skin unpleasantly scurfy, but handling well.

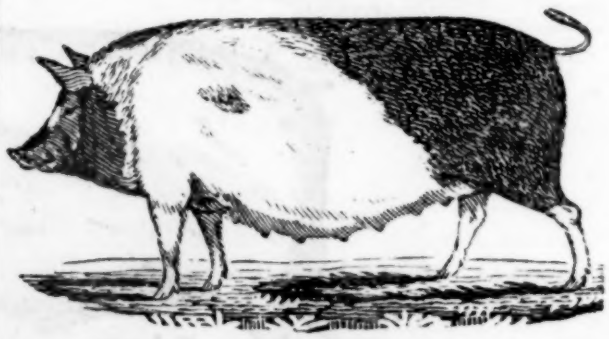


The cross o the Berkshire boar and Irish sow are called Belties and are by many considered to be better stock than either. Here is a specimen—*Dick*—one of two, the property of Mr. W. P. Curd, of Fayette County, Ky., that run in one lot: when aged seventeen months, they weighed 530 and 460 lbs. This cross certainly produces a superior hog, as does also that of the Berkshire and Woburn.



The Neapolitan is one of the most fashionable breeds of the day in England at this time. We know of but two importations from that country to the West: Dr. Martin's, before mentioned, and one made from Mr. Lewis Shirley, of Jefferson County, Ky. The above is a descendant of the latter importation, now the property of Dr. Martin. The portrait was taken when the animal was in poor health and condition, and does not do justice to the breed; but he was the only individual within our reach. Mr. Shirley's own stock, when we saw it, looked better. Our knowledge of them is extremely limited; but, from the high character they bear, we are inclined to think well of them, and mean to try them.

The Thin-rind, or Rhinoceros, is a favorite in some parts of the interior of Kentucky, and has been warmly advocated as a cross for the common hogs of the country, by the able Editor of the Kentucky Farmer. He reports, vol. iii., page 142, a lot of half-breed Thin-rinds, raised by Mr. Benj. P. Gray, of Woodford County, Ky., that averaged at eight months, on the common fare of the coun-



try, 226½ lbs. nett; another lot, at fourteen months, 273½ lbs., and a third, at sixteen months, 310 lbs. This is very good. The same writer, who is the owner of the sow here represented, describes the pure Thin-rind thus:

"Their color is not fixed: I have seen jet black and pure white; but they are commonly listed, never spotted. Exceedingly prolific, and better nurses than any

other breed with which I am familiar. They are lively and sprightly as squirrels, carrying their tails curled over their backs, and in constant motion as they are feeding or moving about: the carriage of their tails is peculiar. Their principal defect is one merely of form—some individuals having a sway back, which I should attribute to the in-and-in breeding of necessity resorted to. They are of small size: I should think a full-blood of this breed large, if, at eighteen months, he weighed 200 lbs. nett. But breed the boar to a common sow, and he tells a tale that awakes your wonder. They were imported, some years ago, as I understand, from Tonquin, in China, by a merchant of New-Orleans, and thence brought to Kentucky, by Capt. Jno. A. Holton, of Franklin County." They are generally supposed to be nearly identical with the Siamese, but may be akin to the SWING-TAILED breed of the early English writers.

There are crosses of every grade, of all these kinds on each other, and on the common stock of the country, scattered everywhere through the West and South; but we know of no other distinct breeds of note. There are others occasionally spoken of; but they are few in number—limited, in fact, to a few individual animals. These are Leicesters, Cheshires, &c., &c., no doubt many of them fine hogs.

The Berkshires, the Woburns, and the Irish Graziers, seem to us those likely to be of most use, and are certainly those attracting the greatest degree of attention at this time. Between these there will be the struggle for supremacy. They should be put to the test of the greatest weight of nett meat, on the smallest amount of food, at the earliest age—that meat being of such a quality as to command the highest price in market. The hams heavy, round, plump, fleshy, and lean; the sides thick throughout, and properly fatted; the neck and jowl light; the shoulder thick and fleshy, and the offal small,—are what constitute the most valuable hog for the packer. General beauty and perfection of form will always exert their influence. It must also be borne in mind, that that breed which effects the greatest improvement on the common hog of the country, is the one most to be valued by the generality of the farmers of the West.

We have endeavored to be impartial: if we may be thought wrong in some things, let it be ascribed to an error of judgment.

---

*We have received the following from Dr. Martin:*

For the Western Farmer and Gardener.

*A trial of Black Berkshires and Woburns, fed by a disinterested person, by measurement.*

(A COPY.)

"There were put under my care on the 13th August, by Dr. Martin and Jas. F. Taylor, two Woburn and one Berkshire sows, for the purpose of being fed; and I received directions to give to each one, five pounds of corn a day, and to increase the quantity, until I should find what quantity the smallest eater of the three would consume.

"On that evening I gave to each one of them two and a half pounds of corn, and the next day five pounds each, and on the 15th, nearly six pounds to each. One of the Woburns, (Patience,) failed to eat all of her allowance, and the next day was very lame, (I suppose slightly foundered,) and their food was again reduced to five pounds each per day, until the 20th when,(Patience having recovered)it was gradually increased so as to give each one, fifty-two pounds of corn in the ten days, when they were weighed, and the following is the result:

Mr. Taylor's Black Berkshire, Belinda, gained, 21 lbs.

Dr. Martin's Woburn, Patience, gained, 21 lbs.

Dr. Martin's Woburn, Courtenay, gained, 30 lbs.

Clarke County, Ky., August 23, 1841.

JAMES WEATHERS, Jr."

N. B. Mr. Duncan who intended to have a Black Berkshire fed, in consequence of an accident happening to her, did not bring her to Mr. Weathers'.

M.

---

Prof. Liebig says, that according to late discoveries in agricultural chemistry, in taking the hay from meadows, the principal cause of exhaustion to the soil is the loss of the potash contained in the hay; and that this may be readily restored by sowing the meadow with a thin covering of wood ashes. Farmers should be very careful of their ashes. Its beneficial effects on corn and grass have been well tested.—*Louisville Journal.*

### Portrait of Locomotive.

So much interest has been excited by the numerous reports in circulation respecting this extraordinary animal, that we have concluded not to delay the appearance of his portrait until we should have it in our power to express an opinion of him from personal observation—and it has, therefore, been prepared to grace the first number of our new volume.

The first time we cast our eyes on Mr. Foster's drawing of him, we thought that the flaming character which preceded him, was not in the least overdrawn,—what opinion we may form on a close examination of the animal himself, we cannot say—but as we hope to see him very soon, we will risk nothing now.

Locomotive was imported into this country, by Mr. J. E. Letton, of Kentucky, on the 17th of June last, and is registered in the English Herd Book, light roan, was calved 5th of October, 1838; sired by the Duke of Northumberland, (1940,) dam Oxford, by Duke of Cleveland, (1937,) g. d. by Matchem, (2281,) g. g. d. by Young Wynyard, (2859,) &c., &c.

---

### Descriptions of forty-one varieties of Apples.

FRUITED NEAR RICHMOND, IND.

[Continued from our last.]

21. WATSON'S VANDIVERE.

A large, fair apple; color dull yellow, and red streaks; form round, full at the blossom end; coarse grained; not very sprightly; good for cooking and drying; winter apple; good bearer.

22. HARRISON APPLE—In East Jersey called the LONG STEM.

But lately propagated in this part of the country, therefore I cannot describe the apple from my own knowledge of the fruit.

23. GOLDEN RUSSET—BULLOCK PIPPIN, or SHEEP-NOSE.

This apple is below medium size; the skin is yellow, inclined to a russet; the flesh, yellow, rich, juicy, tender and sprightly. I know of no apple more generally admired for its richness and excellent flavor than this; commanding a high price, and ready sale, in market; it makes very rich cider; a great and constant bearer; and keeps well till spring.

24. BELLFLOWER.

A large, beautiful and excellent apple, both for the dessert and for cooking; color bright pale yellow, the cheek next the sun has sometimes a blush; the form is oblong, somewhat pointed; keeps well through the winter; a good bearer.

25. VANDIVERE PIPPIN.

The size, color and form, resemble the Watson's Vandivere, except that it is more red and handsome, and indented at the blossom end; tolerably good for eating and cooking; excellent for drying; it keeps through the winter; a good bearer.

26. RHODE ISLAND GREEN.

Is a very large, fair apple, of a round shape, ends somewhat flatted; color a yellow green, skin spotted with red; the flesh is yellow, rich, juicy, and tender; keeps till midwinter.

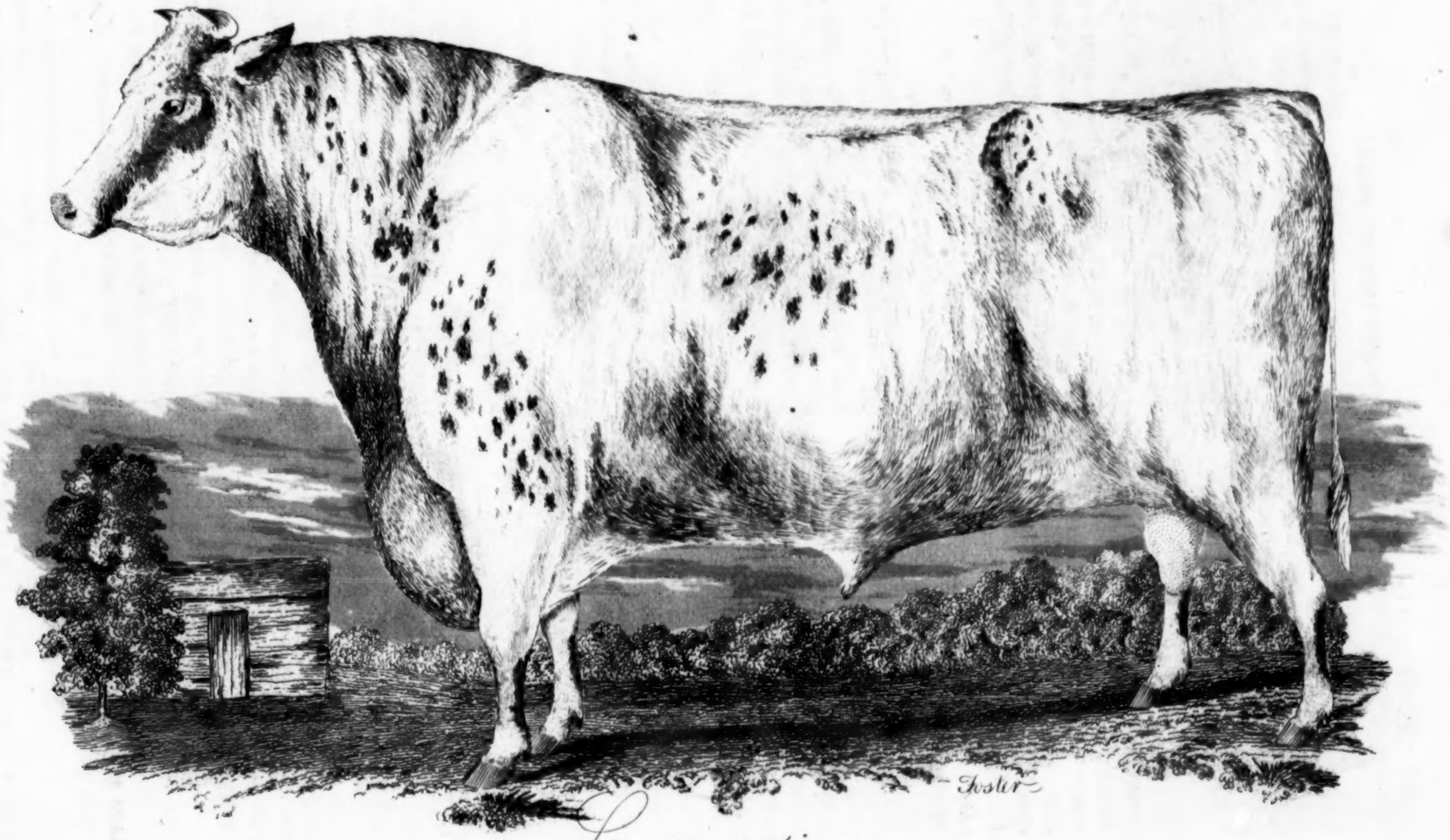
27. WHITE PIPPIN.

I have not found this apple described by any of the writers on fruit; it was brought from Pennsylvania by S. Wharton; the trees grow upright and thrifty; the apples very unequal in size, say one half if measured are large and handsome; form flat; color clear pale yellow, approaching to white; flesh white, brittle, juicy, and well flavored; they ripen in succession through the winter; good bearer; two trees would be enough in a selection of one hundred.

28. ROMAN STEM.

Middle size; the form round; many of them have a fleshy protuberance near the stem; the skin is rough, a pale yellow with black clouds and spots; it is much admired for its tender, mild, juicy and agreeable properties; the tree is

The Property of Jas. E. Letton of Citron Forest, Pinegrove Farm, near Millersburg, Bourbon County, Kentucky.



*Locomotive.*

*The Property of Jas. F. Letton of Citron Forrest, Piney Grove Farm, near Millersburg, Bourbon County, Kentucky.*

handsome and very fruitful in every respect; worthy of extensive cultivation; keeps through the winter, retaining its excellent flavor.

29. PENNOCK.

A beautiful large, round, red apple; keeps through the winter; a rich pleasant apple, somewhat subject to the bitter rot.

30. RED BALDWIN.

But lately introduced here from Prince's nursery, Long Island. My trees of this variety have not yet come into bearing.

31. AUNT APPLE.

This is a beautiful and large apple, somewhat oblong; the skin smooth, streaked with a lively red, on a yellow ground; the flesh is yellow, breaking, and juicy; of an agreeable flavor, but not rich; being very large and beautiful, it sells readily in market; keeps well through the winter; very fruitful.

32. SMITH APPLE—SMITH CIDER APPLE.

Over medium size, on young trees they frequently grow very large; form round, even at the blossom end; the skin is smooth, a lively red, some with streaks of yellow; where exposed to the sun a bright red on every side; a pleasant table fruit, rich and juicy; abundant bearer; a winter fruit.

33. MICHAEL HENRY PIPPIN.

Sweet apple; over medium size; fair, of an oblong shape, flat at the stem end, and diminishing towards the crown; color pale yellow; the flesh is sweet, tender, rich, and juicy; of a yellow color; it keeps well through the winter; the trees grow upright and strong; bears abundantly every other year.

34. BLACK APPLE.

Rather below medium size; the form round, but flat at the ends; the skin is smooth, of a deep red, approaching to black; the flesh is yellow, frequently accompanied with red streaks, rich, crisp, and well tasted; it ripens in the eleventh month, and keeps till late in the spring; it is much admired by many as a fine table fruit; the tree is of moderate size, growth spreading; it bears very young, and abundantly; the beauty of this apple when on the trees and well loaded, is much admired.

35. RED OR SWEET PIPPIN.

Over medium size; form flat; color a brownish red, with a mixture of a small portion of greenish yellow; the flesh is firm and solid, very sweet and rich, rather dry, not very sprightly, no acid; excellent for cooking or making rich apple butter; keeps well till late in the spring; tolerable bearer.

36. WHITE PEARMAIN.

Over medium size, fair; of an oblong shape, pointed towards the crown; color a dull yellow with dark clouds; the flesh firm, brittle, rich, juicy, saccharine, and highly flavored, nearly without acid; very generally admired as a first rate fruit; keeps well through the winter; trees thrifty, some seasons greatly loaded with fruit; the apples grow in clusters.

37. RED ROMANITE—CART HOUSE, or GILPEN.

The fruit is small; color deep red; the skin smooth; the form inclining to an oblong; the flesh yellow, firm and tough; taste sweet; keeps well till summer;—as there are many finer sorts come into notice, I consider these hardly worth cultivation.

38. WINESAP.

Size middling; the form round, lessening a little towards the crown; skin smooth; color dark red, with a small portion of yellow, and some with a few streaks of yellow; the flesh is firm, rich, yellow, tolerably juicy and pleasant, with an agreeable acid; an excellent cooking apple; a great and uniform bearer; the fruit keeps well equal to the Newton Pippin; the form of the tree is irregular; the branches often growing downwards and cross each other, requiring a high body; they make excellent cider for bottling.

39. NEVERFAIL.

Middle size; form round, somewhat long, lessening towards the crown; color red and yellow striped; the flesh is tender, juicy and well flavored; it keeps equal with the Newton Pippin or Winesap; they are near two weeks behind common apple trees in the spring in putting out leaves and blossoms; not considered among the best bearers, but sometimes, when all other apples have been killed with early frosts, they have been well loaded with fruit.

40. NEWTON PIPPIN—GREEN NEWTON PIPPIN.

Over middle size; shape round; color green at the time of gathering winter fruit; they do not become fully ripe till in the second month, when they become a beautiful yellow; the flesh is yellow, firm, brittle, rich, juicy and sprightly, with an excellent and agreeable flavor; they keep till summer, retaining their juice and excellency. When every quality is taken into consideration, this is, perhaps, inferior to no other apple; some have an objection to them because they are of a slow growth, and a long time coming into bearing; but that fault can be remedied, by grafting or inoculating them on good thrifty seedling bodies. Of upwards of thirty trees of this sort that I planted in my orchard, all grafted on seedling bodies, (twenty years ago) they came into good bearing nearly as soon as the generality of my other apple trees, planted at the same time; there are but very few trees in my orchard more thrifty than they, none more handsome, and but few that bears more abundantly and uniform than they do.

41. AMERICAN PIPPIN—GRINDSONE APPLE.

Medium size; the shape is uncommonly flat, without any hollow at the ends; the skin smooth, a dull red with faint yellow spots, and a portion of dull green; the flesh hard, white and dry, pleasant taste, a small portion of acid, not sprightly nor highly flavored; the trees are uncommonly thrifty, with long slender limbs, hanging and crooked shoots; not much to recommend it, but its great keeping; with proper care they will keep all summer; moderate bearer.

The time of ripening is calculated for the 40th degree of latitude, but will vary in different latitudes, situations or changes of seasons.

ANDREW HAMPTON.

---

For the Western Farmer and Gardener.

## An Essay on the Importance of Lime in Soils.—No. 1.

BY DARIUS LAPHAM, CIVIL ENGINEER.

The farm on which my father resides, in Champaign county, in this state, lies in one of those beautiful glades branching off northwardly from the main valley of King's Creek, a large tributary of Mad river. We came into possession of a part of the present farm in 1830. Previous to that time, this part had been "cropt" for many years with corn, wheat, &c., without any regard to a rotation of crops, or the addition of manure, until the soil had become almost exhausted, or worn out, by this constant drain upon its resources. Since it has been in our possession it has been divided into rectangular fields, of nearly equal area, and the "four crop" system of rotation has been pursued in the cultivation throughout, until each field has had at least one crop of clover ploughed into the soil, and several of them have received two crops of clover. Very little stable manure has been used; but whatever else the farm afforded, such as refuse straw, cornstalks, weeds, &c., have been added to the soil as manure. Some few experiments have been made with gypsum, and also with leached ashes, but to no great extent—sufficient, however, to show the benefit which clover derives from the application of these substances. The experiment was likewise made of the application of gypsum to Indian corn, by putting a small quantity in each hill at the time of planting, without producing any sensible effect on the corn;—but two years afterwards, when the same field had been laid down in clover, the places where the gypsum had been applied to the corn, became very conspicuous by the greater luxuri-

ance and increased height of the clover at those places.

Although by this system of management there has been an evident improvement in the fertility of the soil, on this part of the farm, since we have occupied it, still it cannot be called fertile, as it will not raise good wheat, and corn crops are below an average both in quantity and quality. Oats and barley seem to do better than corn or wheat; but it is necessary that the soil should be rendered still more productive, before we can expect to realize much profit from it. Despairing therefore of restoring fertility by the means heretofore pursued, it has been an object of constant enquiry and research with me to ascertain the best mode of increasing the productiveness and fertility of this part of the farm. The first step in the improvement of any soil, is to obtain an accurate analysis of its component ingredients. Accordingly I sent a specimen of the soil, taken from the middle of a cultivated field, to my friend, Dr. J. L. Riddell, whilst he was employed in making a geological survey of the northwestern part of the State; and by a careful analysis he found that one hundred grains contained the following substances:

| | | |
|---|---|---|
| Water, - - | 6 | grains. |
| Organic matter, - | 3 | " |
| Silicious " - | 80 | " |
| Aluminous " - | 8 | " |
| Per-oxyde of iron, - | 3 | " |
| Total, | 100 | " |

He likewise observes, that *lime* could not be detected in this soil; and the amount of saline matters was inappreciably small. He further states that the soil seems to be a sediment from turbid water. It has usually a dark brown, or reddish brown color, consists of rather fine particles, and exhibits to the naked eye numberless glimmering grains of sand.*

Having procured the foregoing analysis, the next step in this inquiry was to ascertain which of the component parts of the soil required to be increased or diminished, or whether any other substances were required to be added in order to increase the fertility of the soil. The prosecution of this inquiry, led me into the extensive and almost inexhaustible subject of agricultural chemistry; and the pages of Davy, Chaptal, Ruffin, and professors Hitchcock, Dana, Jackson, Liebig, and several others, have been consulted during my investigations.

All fertile soils throughout the known world, are composed essentially of the following ingredients:—

Water, by absorption.

Humus, decomposed animal and vegetable matter.

Silicious matter, or sand.

Aluminous matter, or clay.

Calcareous matter, or lime.

Magnesia, manganese, and oxyde of iron, are likewise frequently found in soils; but they are not deemed essential to fertility; and in certain states of combination with other substances may be either injurious or beneficial to the growth of plants.

The greatest degree of fertility which it is possible for any soil to attain, may be produced by a proper admixture in certain proportions, of the five substances above named; but the proportions of the various ingredients may be infinitely varied, (avoiding extremes in any one substance,) and still the soil may be deemed fertile; but, nevertheless, there is a limit beyond which the fertility of a soil cannot be carried. What the exact proportions are, and what degree of admixture and combination of the particles are requisite, to obtain the greatest productiveness, has never yet been precisely ascertained; and in order to form some idea of this point, it is useful to have recourse to the analysis of soils of acknowledged fertility and productiveness.

Professor Charles T. Jackson, in his report on the Geological survey of Rhode Island, has given the analysis of ninety-four different cultivated soils, taken from various localities in nearly all parts of the state, and in eighty-nine of them, *lime* was present as one of the

* See Riddell's Geological Rep. to the Gen. Assembly of Ohio.

ingredients. Selecting, promiscuously, the results of ten different cultivated soils, from the tables in the geological report, and making an average, we find that the proportions of the five essential ingredients composing the soils, are, in one hundred grains, as follows:

| | |
|---|---|
| Water, - - - | 2.0 grains. |
| Humus, - - - | 5.0 " |
| Silicious matter, (soluble,) | 3.5 " |
| Silicious " (insoluble,) | 85.0 " |
| Aluminous " and iron, | 3.5 " |
| Calcareous " (salts of lime,) | 1.0 " |
| Total, | 100.0 " |

A cultivated alluvial soil, taken from the banks of the Mississippi, 100 miles above New Orleans, gave the following results by analysis of 100 grains:

| | |
|---|---|
| Water, - - - - | 3.9 grs. |
| Humus, - - - - | 3.6 " |
| Silicious matter, - - | 81.4 " |
| Aluminous matter and iron, | 7.0 " |
| Calcareous " (salts of lime,) | 2.8 " |
| Total, | 98.7 " |

The analysis of one hundred grains of dried soil from the banks of the Nile in Egypt, a soil celebrated from the remotest antiquity for its luxuriant vegetation, afforded the following results:

| | |
|---|---|
| Water, - - - | 0.00 |
| Humus, - - - | 6.90 |
| Silicious matter, - - | 47.39 |
| Aluminous " - - | 32.10 |
| Calcareous " - - | 2.02 |
| Iron - - - | 11.20 |
| Total, | 99.61 |

The following is an analysis of a very rich soil from Batavia. The analysis was made by Mr. Henry Sumner, of Boston, under the direction of Prof. Jackson. 100 grains of this soil yielded,

| | |
|---|---|
| Water of absorption, - | 7.8 grs. |
| Humus, - - - | 24.9 " |
| Silicious matter, - - | 43.0 " |
| Aluminous " - - | 14.8 " |
| Calcareous " (phos. and crenate of lime,) - - | 2.0 " |
| Per-oxyde of iron, - - | 7.9 " |
| Magnesia, - - | 0.3 " |
| Total, | 100.7 " |

The foregoing analysis of some of the most fertile soils of the world, will serve to instruct us as to the nature and amount of different matters that ought to be introduced into a given soil, in order to render it more fertile. It is not expected that this will be done at a single operation; but it is important that we should know the proper course of improvements, and then we can gradually effect them, according to our means.*

By making a comparison between the results of the foregoing analyses of cultivated soils remarkable for their great fertility, and the constituent parts of our soil in Champaign county, we at once discover a striking difference in the *total absence of lime* in our soil, as well as a deficiency in the proportion of humus, or organic matter. The sum of the silicious and aluminous matters in each being very nearly the same. It is, therefore, highly probable that an artificial addition of the requisite proportion of lime and organic matter to our soil, will restore its fertility, and render it equal to the general average of the soils above noted. But there are other considerations which render it still more probable that the deficiency of lime and organic matter is the principal, if not the sole cause of the unproductiveness of our soil. These considerations I shall proceed to notice.

If there is any one principle settled in agriculture, it is that some *convertible salt of lime* is essential to the fertility of soils, and that certain crops cannot be raised upon a soil destitute of lime. When we consider the most favored grain regions of the earth, it cannot fail to be remarked, that the soils are invariably charged with a notable proportion of lime. On the other hand, we note that where the soil is deficient in this respect, such crops are invariably meagre, blighted and unprofitable. A soil destitute of lime may produce straw, but it never can yield grain!

It is an important question, at present much discussed, whether salts of lime

* Jackson's Report.

are essential to the nourishment of certain cereal grains, and whether the amount of calcareous matter is diminished in a soil by raising upon it successive crops. It is evident, *since all vegetables contain lime* in their constitution, that if they are raised on and removed from the soil after their growth, a certain proportion of *the salts of lime* must be abstracted. No one, I presume, will in modern times, contend that plants create any elementary substance. If they contain lime they must have drawn it from the soil, or from the manures that have been spread upon it.

One hundred grains of the ashes of the grain of wheat were analyzed by Sir H. Davy, and he obtained 44.5 *per cent. of the earthy phosphates*, chiefly *phosphate of lime.* The ashes of the straw of wheat contain *six per cent. of the phosphate, and one per cent. of the carbonate of lime;* Indian corn contains the *phosphate of lime*, its ashes yielding no less than thirty-six per cent. Clover contains the *sulphate of lime;* and *nearly all the plants known, yield a small proportion of calcareous matter.**

It is therefore proven beyond all doubt, *that* LIME *in some of its various forms is an essential ingredient in all fertile soils;—first*, from the fact that it is almost universally present in the most productive soils throughout the world;—*second*, from the fact that all known plants contain more or less calcareous matter in some form as an essential constituent.

It is likewise proven that lime, in some of its forms, must be continually abstracted from the soil, by the constant growth and removal of those plants which contain in their constitution any notable proportion of the salts of lime; and hence it may be inferred, that by constant cropping, the lime contained in the soil will in time become exhausted; and unless it be again added artificially to the soil, it will become incapable of producing those plants which contain any considerable proportion of lime. This fact is likewise proven by universal experience, in the cultivation of wheat, Indian corn, clover, and other plants containing in their constitution, lime in large proportions.

Until very recently, it had not been suspected that any soil was wholly destitute of calcareous matter; and more especially soils resting immediately upon lime stone formations. Indeed, most of the writers on agricultural chemistry, by the manner in which they have treated of soils, and their constituent parts, would induce their readers to infer the general presence, in very large proportions, of this ingredient, *in all soils.* Mr. Edmund Ruffin, of Virginia, was perhaps the first to discover the general absence of this substance in all soils which are naturally unproductive. He states that in 1817, when first attempting to analyze soils, it was with surprise and some degree of distrust, that he found *most specimens destitute of calcareous earth.* And after repeated trials, made with great care and accuracy, he concludes that no naturally poor soil (below the falls of the rivers in Lower Virginia,) *contains the smallest proportion of carbonate of lime.* After having made extensive experiments, on both rich and poor soils, from various parts of the country, Mr. Ruffin arrives at the following conclusions:

"That all calcareous soils are naturally fertile and durable in a very high degree."—And,

"That all soils, naturally poor, are entirely destitute of calcareous earth."

It, then, can scarcely be denied (continues Mr. Ruffin,) that calcareous earth must be the cause of fertility of the one class of soils, and the want of it produces the poverty of the other. Qualities that always thus accompany each other cannot be otherwise than *cause* and *effect.**

But however deficient the soils in some parts of Virginia may be in calcareous matter, many persons will be surprised to learn, *that a large propor-*

* Jackson's Report on Rhode Island.

* Ruffin's Essay.

*tion of the soils of Ohio are likewise destitute of this essential ingredient.*

In the second Geological Report of Ohio, Dr. Locke states that the soil formed by the disintegration of the under-lying limestone formations, in the south-western parts of the state, *does not contain at the surface so much lime as we should anticipate;* and *rarely*, if *ever*, where undisturbed, does it *effervesce or foam with acids.* On the tops of the hills around Cincinnati, the *loam* lies seven to nine feet deep, before any stone are mingled with it, *and this loam is not effervescent with acids.*

The vegetable acids (observes Dr. Locke,) which exist in the natural juices of plants, become saturated with lime as they pass through it, and form soluble salts, which are washed away by the rains. These causes, operating for ages, have evidently bleached the surface, especially on the table lands, till, in my opinion, *there is an absolute want of calcareous matter.* If this is the fact, the clay-marl, found every where between the layers of rocks, would be a beneficial manure; and burnt slaked lime would be still more useful, and would undoubtedly renovate the wheat and grass lands, *which, on the table lands, are to some extent worn out.*

In a previous Geological Report of Ohio, Dr. Riddell says, the bottom lands near the mouth of the Big Miami, are in some places *destitute of carbonate of lime.*—The diluvial soils of the extensive plains of Champaign and Logan counties, as I learned from frequently repeated experiments, *are usually destitute of carbonate of lime.* I have often noticed, by repeated observation, while travelling north in Ohio, that the inner tracts of all large plains, whether the margins are bounded by hills of limestone or not, present a soil *in which carbonate of lime cannot be detected.* Between Clarksville and Springfield, the soil does not often contain any *appreciable amount of carbonate of lime.* Near Upper Sandusky I tried with acids, portions of the upland soil from several places, *but no carbonate of lime was indicated.* Neither would the *black mould effervesce*, when submitted to the same experiment. The soil about Monroe, in Huron county, *does not effervesce with acids*; and would probably admit of improvement by the application of calcareous matter.*

Farmers of the West! We beg of you to reflect upon these facts. Is it *true*, that your soils contain little or no lime or calcareous earth? A fip's worth of nitric acid, poured upon the soil, will inform you. Is it also *true*, that the presence of lime, in some of its forms, is *essential* to the proper growth and perfection of nearly every vegetable known, and more especially of those that are cultivated and used as food for man and animals? If you should not be convinced of this fact, from the brief considerations above given, read the invaluable works of Davy, Chaptal, and many others, on agricultural chemistry. And should you succeed in convincing yourselves of these important truths as I have done, you will naturally inquire, what is to be done to remedy this defect in our soils. In the next number, I propose to aid you in your researches for the proper remedy, as well as to offer some further and more important facts and reasons upon the *necessity* of the application of calcareous earth to poor and exhausted soils.

(To be continued.)

---

### Notes on the Agriculture, &c. of the County of Muskingum.

Muskingum is one of the oldest settled counties in the state. Its advantages for the acquirement of wealth and the support of a large population, taking into view the natural capabilities of the soil, the great extent of water-power, and the facilities of communication with different markets, entitle it to a prominent rank. The Muskingum river, which passes through its centre, was naturally navigable for keel boats, except at very low water—and by means of dams, with canals and locks, there

* See Riddell's Geological Report.

is now a good steam boat navigation from Dresden, near the north line of this county, to Marietta, at the confluence of the Muskingum with the Ohio, a distance by the river of nearly ninety miles. A side cut of two miles in length, opens a communication from the head of navigation on the Muskingum, to the Ohio and Erie canal at Websport. Zanesville, the county seat of Muskingum, is situated on the river. It contains, including the town of Putnam, on the opposite side of the river, and two other suburb settlements, about nine thousand inhabitants. The National road passes through this place, and it is the northern terminus of the Zanesville and Maysville turnpike—an important work, now nearly completed. There are here six flouring mills, which turned out last year, according to the minutes given me by some of the principal millers, 107,000 bbls.; other mills in the county turned out about 50,000 bbls. There are here four saw-mills, and seven iron foundries. At the falls of Licking, four miles from Zanesville, the Messrs. Dillon have a furnace, a flour mill, and a saw mill. There is in the neighborhood much water-power still unoccupied.

Steam navigation, from Zanesville to Dresden, 16 miles to the north, has been for some time enjoyed; thus affording, in addition to the natural outlet of the Ohio, conveyance by way of the canal and lakes, for an immense amount of agricultural and manufactured products. The completion of the improvement of the Muskingum, now admits of an uninterrupted passage of boats from the Lake at Cleveland to the Ohio at Marietta. Bituminous coal, of excellent quality, abounds in the county—and by boring, salt water is obtained through almost the entire valley of the Muskingum; from which salt is made in large quantities for exportation.

The face of the country is generally hilly—sometimes rough. The soil of the uplands is, or was, naturally very congenial to the growth of wheat. In general, though not invariably, there is rather too much clay in its composition, which causes it to bake hard in dry weather, and prevents plants from sustaining themselves through drought as well as they do in some other soils. The alluvions are first rate for corn. The great agricultural staple of the county is wheat. The next in importance is Indian corn, of which a large proportion is made into whiskey. If not a kernel of it was made into whiskey, it is believed that the community would ultimately be the gainer thereby. But little grazing is practised, and stock seems to be regarded by many of the farmers as a sort of *necessary evil*, which they endeavor to manage with as little inconvenience and trouble as possible—apparently never imagining that any portion of their profits, or even comforts, are depending on domestic animals. They are too often much neglected, and are consequently of inferior quality, and afford no profit.

The most prominent defect in the agriculture of this county, and in fact of a large portion of this section of the state, is the too frequent use of the plough, and running the land constantly to grain crops. The husbandry is too often slovenly and imperfect—permitting the growth of what not only lessens the crop, but injures the soil. The result of this course is, that from the innumerable number of pernicious plants which have for years been suffered to seed the ground, annually accumulating, much of the richest bottom land has become so subject to their growth, that it requires the closest attention and great labor to keep any crop sufficiently clean to get any thing like the full benefit of the soil. Some fields are surrounded with a border of weeds, several feet (sometimes a rod or more,) in width, standing so thickly and of such tall growth, as effectually to obstruct the sight of the passer by to the interior. Sometimes patches are seen in the middle of the fields, where the foul growth has got such "foothold" that they are passed by in ploughing, and left from year to year unmolested.

The too frequent ploughing of the hill lands, without putting them in grass or manuring them, has been, and will be, attended with even worse consequences than are seen on the bottoms. In many instances they are being ruined by the washing of the rains—their fertile portions have been carried down the streams and deposited in the Gulf of Mexico, or mingled with the sands of the Atlantic Ocean! So obvious has been the deterioration, that land which formerly produced good crops, does not now yield an average of ten bushels of wheat per acre—and is constantly growing poorer. Yet an attempt is made by some to defend this way of getting along. They say that money cannot be made in any other way—that it will not do to "take so much pains." Now the truth is, that this practice, if persisted in, will absolutely ruin the county. If it can be said, that it has sometimes made rich fathers, it will certainly be the means of leaving to their children, or those who come after them, a poor and worthless soil, from which they cannot get a living! And in fact the only alternative with those who have long managed in this way, is to *sell out* their possessions and remove to some newer country, where the virgin fertility of the soil will enable them to perform the same barbarous course of cultivation over again.

From what has been said, it should by no means be inferred, that there are no good farmers in this section. There are those who will bear a fair comparison with the *best* in other sections. It is much to be regretted that there are not more of them. But a spirit of improvement is being awakened, which, it is believed, will be productive of important benefits.

Some attempts have been made, from time to time, at improvement in stock, a slight notice of which may not be unappropriate.—As to horses, there is the *material* for forming as good a breed for heavy draught, as need be desired. There are a *few* first rate mares, and Mr. Loyd Dillon, of Zanesville, has a black stallion which was sired by a horse of great note, called "Embargo," formerly owned in Virginia, but the particulars of whose blood I have not learned. Mr. D.'s horse is certainly equal in all points necessary to constitute a perfect draught horse, to any one I ever saw. His progeny, some of which are so old that they have been tried, are of the very best character.

Of road horses, there are scarcely any of the right kind to be met with here. Mr. Moses Dillon has a stallion called *John Stanley, Jr.*, possessing much of the blood of Diomede, Gracchus, Highflyer, &c., which is the best calculated for effecting improvement in this class of horses, of any known in this vicinity.

Several years ago, the Messrs. John and Isaac Dillon, introduced here from Pennsylvania some cattle, which were a cross of the long horn and improved short horn breeds. These cattle made a visible improvement in the stock of the neighborhood—traces of which are still to be seen. A Mr. Leach, who was in possession of a famous breed of dairy cattle, brought here from the south part of Maryland, and originally from England, raised some very remarkable cows from a cross with Mr. Dillon's bulls. One of these cows, now owned by Mr. Isaac Dillon, has made 14 pounds of butter per week for several months together, and that too in the winter season. She is one of the most valuable cows to be found in any part of the country—has nearly all the fine points to be met with in the highest bred stock—is fine boned, heavy quartered, and an uncommonly fine handler. Mr. Dillon has also a thorough-bred Durham, three years old past, whose immediate progenitors were from the stock of E. H. Derby, Esq., of Massachusetts. He is of good size, and has many fine points. The farmers in the vicinity would find it much to their interest to raise up a stock produced from this bull and their best cows.

A few years ago a bull was brought into this neighborhood by Mr. Lytle, called *Norvell.* From a printed certi-

ficate, in my possession, signed by Daniel Gano, dated Cincinnati, Nov. 27, 1829, it appears that this bull was bred by Mr. Lewis Sanders, of Gallatin county, Ky.—that he was got by the short horn bull *Napoleon*, and out of the imported long horn cow *Georgiana*. He was a very good bull—blending in his form and appearance, the distinguishing points of the long and short horn breeds. He was killed about two years since. His progeny are good. Some of them are still in the neighborhood; but there was not a sufficient desire for improvement among the farmers to patronize him much.

In swine, considerable improvement has been effected within a few years. Different sorts of China have been sometime here, as well as mixtures of the Byfield, "Grass breed," &c., and a variety called Bedford, from Pennsylvania. In the fall of 1839, two boars and three sows of the Duke of Bedford's breed, were brought out here from Maine. They were very similar in appearance to Mr. Neff's English hogs which he calls "Graziers." One of the boars, very unfortunately, soon became imbecile. The other one, which was owned by Mr. Isaac Dillon, greatly improved his stock of hogs. Mr. D. has now a boar and several full blooded sows of this breed which are very fine. He has, besides, some fine Berkshire, and some Sussex swine.

Mr. Amasa Van Horne, near this place, has a very good Berkshire boar—thorough-bred—descended from the stock of Mr. Bement, of Albany.

Efforts may have been made by others, in different parts of the county, for the improvement of their domestic animals, of whose names I have not been apprised.

Considerable improvement is beginning to be shown in the construction of farm buildings—particularly barns—though a really good and convenient one is still rare. Mr. John Tatham, near this town, has one built last season, which, taking it in all respects, is certainly the best I have seen in the West. It is of brick, with a stone basement. Its internal arrangements are very convenient; and there is a capacious apartment in the basement for the stowing of vegetables for feeding stock in winter. I propose, at some future time, submitting a plan of this barn, with some others, to be engraved for the Farmer.

I forgot to mention, in the proper place, the potteries in this county, for the manufacture of stone ware. This business is here carried on to a great extent, and is one of the most important of the manufacturing interests. The ware is exported to all parts of the country—many boat loads are annually taken from here to the country bordering on the Mississippi. If I can procure any statistics I will forward them another time.

*Orchards, Fruits, &c.*—The hilly lands of this county, and of the southeast section of the state generally, are well adapted to the growth of fruit trees. Apples, in some neighborhoods, are abundant; but are too frequently of indifferent quality—the farmers not taking the trouble to engraft or inoculate their trees. Putnam, which may be regarded as a branch of the Marietta settlement, has, in its vicinity, some of the very best apple orchards—and there are some of the finest of pears. Peaches, in this county and in Morgan, are generally abundant—yet a delicious peach is scarcely ever to be met with—they are almost always small, and of inferior quality—and although it costs no more to raise the finest kinds, than these worthless things, not one farmer in ten ever attempts it. But attention is beginning to be aroused to this subject—and an *extensive* nursery would ultimately do a first rate business here. Mr. Mount, of Zanesville, has sold, within the last year or two, nearly $1000 worth of fruit trees, raised in New York, and the New England states. Mr. Rufus P. Stone, of M'Connellsville, showed me, the other day, some beautiful and *excellent* peaches, from trees he procured in Philadelphia and Baltimore. He has several trees loaded with the richest looking fruit—

yellowish, with a deep blush on the side next the sun—as large as goose eggs. He has some half dozen kinds—some of which are very early, and nearly as large as these. Mr. Stone has 400 young trees inoculated from them, which he is going to put in an orchard.

*The Wheat crop.*—The last crop of wheat, through all the south-eastern section of the state, is thought to be the poorest in quantity and quality, of any had since the country was settled. In some instances it takes nearly double the usual quantity for a barrel of flour. I have heard of but very few good crops. One in the vicinity of Zanesville, grown by Mr. Abram Sunderland, I will mention, as he thinks its excellence is attributable to the ground having been liberally manured with lime. The yield was near thirty bushels per acre, and it weighed sixty lbs. to the bushel.

Some remarks on Licking, Morgan, Washington and other counties, will be given in succeeding numbers.

S. H.

---

### The Bitter-rot in Apples.

*Mr. Affleck:*—I wish to obtain information from your numerous and intelligent subscribers, and through the columns of your invaluable little work, the Farmer and Gardener, concerning the bitter-rot in apples. The disease has become so prevalent in this section of country, as to almost discourage the cultivation of that very valuable fruit. I wish to know from whence it came, and when and where it originated, and above all, the cause of, and preventive for the disease.

I am surprised to see but little or nothing said, on a subject of so much importance to our country, in the agricultural papers of the day. It is a subject of vast importance to the farmers of Ohio and her sister states, in consequence of the constant and increasing demand in the South for all the surplus apples we can produce; too much so to be any longer passed by unnoticed. I have waited patiently for a long time, in hopes that some person who was better able to throw some light on the subject would take it up. When we take in consideration that a given quantity of land planted with our most valuable varieties of apples will give at least five hundred per cent. more nett profit than the same amount of land planted with any thing else, we must feel the importance of discovering a preventive or remedy for the disease. The first knowledge I have of the disease, was its origin in Ferman's large orchard, Ferman's Bottom, Kentucky, some fifteen or eighteen years ago. I at that time attributed it to the trees having been planted unusually thick; but experience shows there are other causes, though I am satisfied that trees that are crowded suffer much more than those well exposed to sun and light. Orchards on the hills appear to escape better than those on our river bottoms. Trees engrafted at the ground when very young, and whose growth have been of great thrift, and have been pruned with judgment and care, are much less liable to the disease than those of any other description. Trees that have been headed down and engrafted in the top, are much more subject to the disease; and more especially when the trees operated upon are large when done. The people of this and our neighboring states have worse than thrown away thousands of dollars within a few years past by employing men from the north to head down and engraft their orchards, who make a practice of fetching on cuttings from the north and giving to them a great name, but not at all adapted to our climate. The consequence is, fruit inferior to our own, and almost certain to take the bitter-rot, and the orchard ruined.

Our object when selecting our fruit trees, should not be to get trees with great names, or those imported or brought on from the north or east; our object should be to get fruit of good quality, sure bearers, and mostly good keepers, and above all not subject to the bitter rot. The Rome-beauty, or Gillet's seedling, combines more of those quali-

ties than any apple I ever saw; indeed it is considered by every one, where known, par excellence, and out-sells every thing of the apple kind in the southern markets. The Russets and Leather-coats are generally less liable to be attacked by bitter-rot, than those kinds with thin, smooth skins.

We have another enemy that has lately attacked our apples in this neighborhood. Orchards in other sections of the country have been infested for many years with the same insect.—The worm enters the apple at the blossom, and penetrates the core and destroys the apple. A SUBSCRIBER.

Quaker Bottom, Lawrence co., O., Sept. 22, 1841.

---

**A certain Remedy for the Fistula.**

As the horse is one of the most valuable animals we have, and one with which a great many of our poor class of people cannot dispense, who are unable to employ farriers; I consider it the duty of every farmer to furnish such information as he may be in possession of, relative to the most prevalent and fatal diseases of that noble animal, with remedy, manner of treatment, &c.

I am satisfied, from my own experience, that the following composition, if applied before the disease has formed puss or matter, is infallible:

Take half a pound of copperas, half pint of salt, half pint of thick soft soap, half a pint of urine; boil and stir them all together until as thick as jelly, or so thick that it will not run off of a cloth before you can apply it to the fistula; and be certain to apply it boiling hot, it will seldom take the hair off. One application is generally sufficient where the disease is of but short standing. The composition must be applied boiling hot, and fastened on in such a manner that the horse cannot rub or bite it off. H. M. GILLET.

Evergreens Farm, Quaker Bottom, Lawrence co., O., Sept. 22, 1841.

---

**Editorial.**

We have this apology to offer for the small amount of editorial matter contained in this number—that we were absent during the whole of the time of its preparation for the press.

Our time, when absent, was occupied in attending the Fairs in the interior of Kentucky—an enjoyment which we had long promised ourself. Our "Notes by the way" we intended preparing for this number; but on our return home, found that all the space left us was this single column; and are thus compelled to postpone them to our next. We regret this, much, as the reports of the Fairs, &c., will be found of considerable interest. The Fairs at Winchester, Nicholasville, and Paris, came off remarkably well, and afforded us quite a treat.

It is our intention to attend the fair at Chillicothe on the 21st inst, and report matters there.

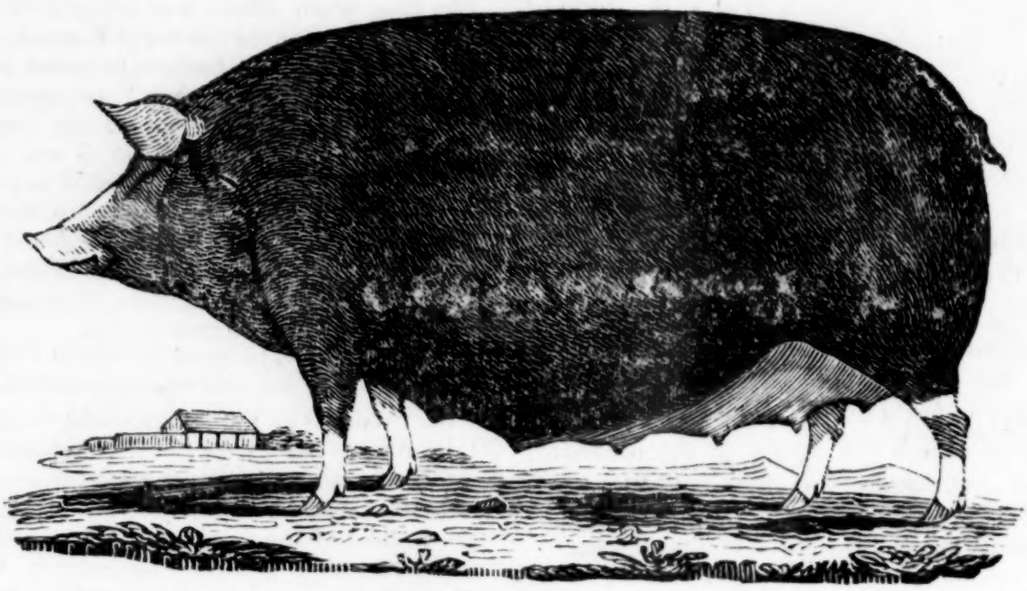
The President of the Montgomery County (Ohio) Society did us the honor to appoint us to deliver the annual address, at the Society's meeting at Dayton, on the 22nd inst. Had we been apprized of the nomination at an earlier day, before other positive engagements had been made, we should with pleasure have done our best to do credit to the appointment. But the time of holding the fair being the same as that at Chillicothe, which we are pledged to attend, compelled us to decline the honor. Mr. Foster will be present at the Dayton Fair, and will report proceedings with his usual ability.

The Cuyahoga County (Ohio) Fair is to be held at Cleveland, also on the same days on which the Fairs are held at Dayton and Chillicothe—a bad arrangement on all sides, and one that must be altered next season. The Secretary of the Cuyahoga County Society has not given us any of the information we asked relative to the different Societies in the state, otherwise we might have made arrangements to have had a reporter there; as it is, we must beg the favor of an extended report from some of our friends in that region—Messrs. C. M. Gidings, Dr. Kirtland, or some other.

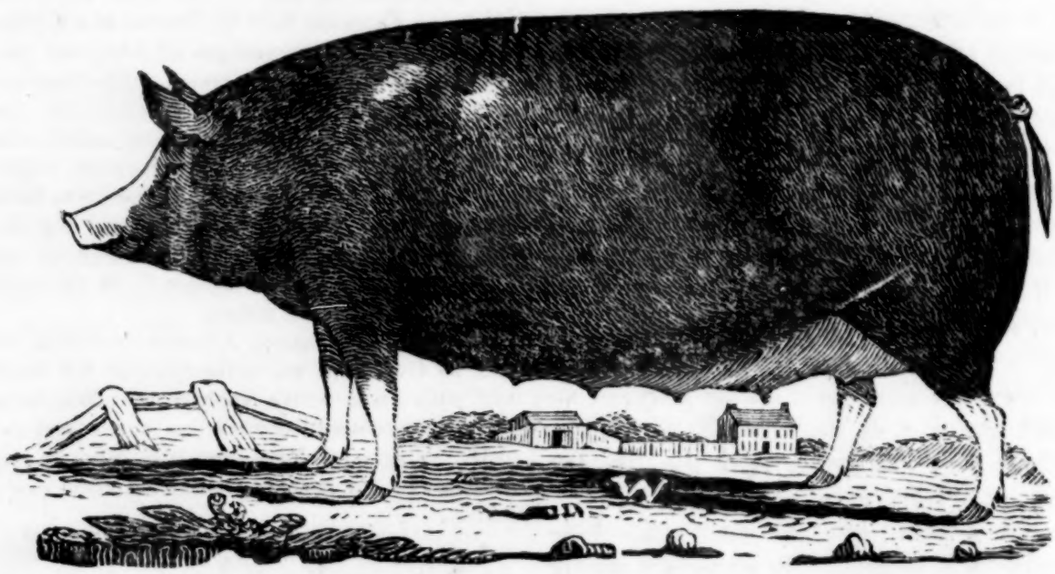
The Licking County Association holds its Fair at Granville, we believe, about the same time with those above spoken of. We have made arrangements to have an agent and reporter there, and hope that the officers and members of the Society will afford him every facility.

A strong effort will be made at Chillicothe and Dayton to organize a state Society, to which the different county Societies shall be auxiliary—with the hope of procuring a charter and annual appropriation from the Legislature this winter, and of ultimately establishing a State School of Agriculture. We would earnestly urge it upon the Corresponding Secretaries, or some influential member of the several County Societies, holding meetings this fall, to endeavor to have a resolution passed, pledging the support of the Society to the measure. Particular attention should be drawn at the same time, to the proposed National Society.

We would gladly say something in favor of these two important measures, but space fails us.

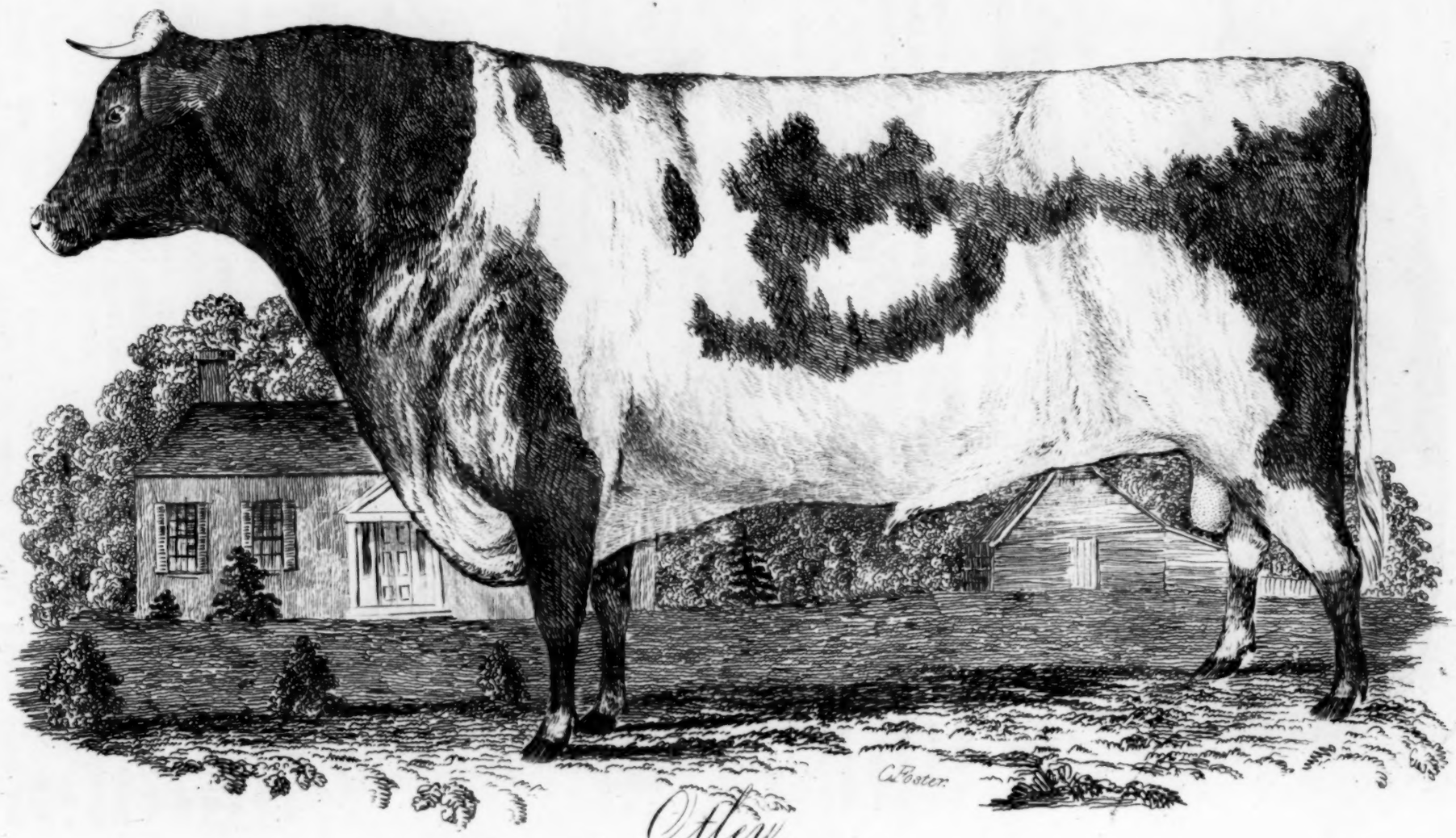


Above we give the portrait of a thorough-bred Berkshire sow, Miss Peggy, (purchased of C. N. Bement, of Albany, by, and now the property of H. S. Kellogg, of Cincinnati.) She was got by Siday, dam old Peggy, imported by Mr. Hawes. Siday was imported by Mr. Hawes, in 1835. Mr. Kellogg is engaging extensively in the breeding of Berkshires; and, besides the above, has several other fine breeding sows, one is



Miss Ann, a daughter of Miss Peggy, by a son of Old Stately; and another, "Mrs. Ball," a full blooded sow which he purchased of C. N. Bement, in 1840, and whose portrait will appear in a future number. "Mrs. Ball" was by a son of imported Newbury, dam Old Sally, imported by Hawes in 1833. The above are now all in pig to thoroughbred boars; the two first to Young Sampson, and the last to imported Reading.

He has also some eight or ten sow shotes, all of them fine; purchased lately of Bement and Lossing, of Albany, New York, which he contemplates breeding this fall, and in the spring will be ready to supply orders. The foundation laid by Mr. Kellogg, in taking care to have nothing but choice animals to breed from, cannot but ensure him a ready demand from persons desirous of possessing animals pure in blood and fine in form.



C. Foster.

Otley.

The Property of Messrs Wheeler, Hearne & Shropshire of Bourbon County, Ky.